UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,793	03/15/2002	Ibrahim Katampe	434576-382	3062

1333 7590 10/06/2003

PATENT LEGAL STAFF
EASTMAN KODAK COMPANY
343 STATE STREET
ROCHESTER, NY 14650-2201

EXAMINER	
THORNTON, YVETTE C	

ART UNIT	PAPER NUMBER
1752	

DATE MAILED: 10/06/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/099,793	KATAMPE ET AL.	
	Examiner	Art Unit	
	Yvette C. Thornton	1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 March 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 March 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

This is written in reference to application number 10/099793 filed on March 15, 2002 and published as US 2003/0175612 A1 on September 18, 2003.

Information Disclosure Statement

1. The Information Disclosure Statement filed on July 8, 2002 has been entered and fully considered.

Specification

2. The use of the trademarks VERSA TL500, VERSA TL502B, PEMULEN TR-1, etc. have been noted in this application (see pg. 5, l. 9-19; example 1). They should be capitalized wherever it appears and be accompanied by the generic terminology.

3. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being obvious over Katampe et al. (US 6,620,571 B2) in view of Orr et al. (US 4,879,287 A) and Stead et al. (US 5,496,891 A). Katampe exemplifies a process of forming an emulsion of an internal phase in a

continuous aqueous phase and enwrapping the particles of the internal phase in an amine-formaldehyde wall produced by in situ condensation of an amine and formaldehyde (c. 3, l. 1-11). The taught aqueous phase serves as the continuous phase of an oil-in-water emulsion in which the oily core materials is dispersed (c. 4, l. 16-20). The aqueous phase includes agents known as emulsifiers and system modifiers to control the size and uniformity of the microcapsules and to produce individual mononuclear capsules in preference to cluster of microcapsules. Useful emulsifiers and system modifiers are well known in the art. Their selection depends on the type of microencapsulation process used and the nature of the wall formers. The taught invention exemplifies the combination of methylated polygalacturonic acid (pectin) and sulfonated polystyrenes. The polygalacturonic acid acts as both a stabilizer and a viscosity modifier for the aqueous phase and the sulfonated polystyrenes aid in emulsification (c. 4, l. 21-33).

6. The operational center of the imaging system of the taught invention is the encapsulate or internal phase of the coating composition and optionally a chromogenic material. In accordance with the taught invention, the internal phase comprises a polyvalent isocyanate and a photosensitive composition. Typically the photosensitive composition includes a photoinitiator and a substance, which undergoes a change in viscosity upon exposure to light in the presence of the said photoinitiator. That substance may be a monomer, dimer, or oligomer, which is polymerized to a higher weight compound, or it may be a polymer, which is crosslinked. The most typical example of the said compound is an ethylenically unsaturated compound (c. 5, l. 3-67). This teachings meets the limitations of instant claims 11 and 12. The said chromogenic material is colorless electron donating type

dry precursor compounds which react with a developer compound to generate a dye (c. 6, l. 26-c. 7, l. 8). This teachings meets the limitation of a color former as set forth in instant claim 20. The internal phase may also include an carrier oil to affect and control the tonal quality of the images obtained (c. 7, l. 32-58).

7. The mean size of the capsules may vary over a broad range but generally ranges from approximately 1-25 microns, preferably 3-15 microns (c. 10, l. 26-37). This teaching meets the limitations of instant claims 8-10. The imaging system maybe embodied in a self-contained copy sheet in which the encapsulated chromogenic materials the developer materials are co-deposited on one surface of a single substrate or they are deposited on two supports in layer which can interact when the supports are juxtaposed (c. 10, l. 38-c. 11, l. 15). It is the examiner' s position the when the taught imaging system is deposited on two supports the limitations of instant claims 14 and 15 are met wherein the second support serves as both a protective layer and a second support.

8. Example 1 exemplifies the microencapsulation of gelatin in an oil phase. The capsule is prepared with polyvinylbenzenesulfonic acid (VERSA), pectin (polygalacturonic acid methyl ester) and melamine-formaldehyde. Three different internal phase compositions are used. Each photopolymerization compositions comprises an ethylenically unsaturated compound (TMPTA), a photoinitiator and color formers (yellow, magenta and cyan, respectively) (c. 11, l. 20-c. 12, l. 51).

9. Katampe teaches all the limitations of the instant claims except the use of a carboxyvinyl polymer in the aqueous phase as set forth in the instant claims. Katampe does however teach that the taught aqueous phase includes agents known as emulsifiers and

system modifiers to control the size and uniformity of the microcapsules and to produce individual mononuclear capsules in preference to cluster of microcapsules. Useful emulsifiers and system modifiers are well known in the art. Their selection depends on the type of microencapsulation process used and the nature of the wall formers. Therefore, one of ordinary skill in the art would have been motivated to use any emulsifiers or system modifier, which is well known and conventional in the art of microencapsulation. Orr et al. (US 4,879,287 A) teaches that thickening agents maybe (1) natural products such as tragacanth, pectin or alginic acid or (2) synthetic or semi-synthetic compounds such as methylcellulose and carboxypolymethylene (CARBOPOL) (c. 3, l. 1-15). Orr serves to equate pectin (polygalacturonic acid methyl ester) and carboxypolymethylene (CARBOPOL) in the art. Stead et al. (US 5496891 A) discloses in the background that polyacrylic acid cross-linked with (poly)vinyl sucrose or (poly)vinyl pentaerythritol (also known as allyl sucrose and allyl pentaerythritol) have been sold since 1954 and are commercially available under the trademark CARBOPOL (c. 1, l. 7-18).

10. One of ordinary skill in the art would have been motivated by the teachings of Katampe to use any well known and conventional emulsifier in the aqueous phase of Katampe. In light of the teachings of Orr that pectin (polygalacturonic acid methyl ester) and carboxypolymethylene (CARBOPOL) are known equivalents in the art of microencapsulation, one of ordinary skill in the art would have been motivated to substitute the exemplified pectin of Katampe for a synthetic compound such as CARBOPOL which is a polyacrylic acid cross-linked with (poly)vinyl sucrose or (poly)vinyl pentaerythritol (also known as allyl sucrose and allyl pentaerythritol) and expect reasonably similar results.

11. The applied reference has at least one common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette C. Thornton whose telephone number is 703-305-0589. The examiner can normally be reached on Monday-Thursday 8-6:30.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet C. Baxter can be reached on 703-308-2303. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

14. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1495.

Yvette C. Thornton

Yvette Clarke Thornton
Junior Examiner
Art Unit 1752

yct
September 27, 2003